PORTABLE TERMINAL AND DRIVING METHOD OF THE SAME

CROSS-REFERENCE TO RELATED APPLICATION

The present application is based on, and claims priority from, Korean Patent Application Number 10-2008-0080504, filed Aug. 18, 2008, the disclosure of which is incorporated by reference herein in its entirety.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present disclosure relates to a portable terminal installed therein with a gyro sensor.

2. Discussion of the Background

Typically, a portable terminal is a mobile device that has one or more functions such as performing of voice and video call communication, data input/output and data storage.

With such diverse functions, the portable terminal has evolved into a comprehensive multimedia device that can support various operations, such as capturing images or videos, reproducing music or video files, allowing the user to play games and receiving broadcast contents.

To realize complex instructions, some conventional devices are equipped with a motion detection sensor so that a user may give instructions via a motion commands. However, the conventional devices are deficient for many reasons, including requiring that users remember specific motion patterns relative to all the instructions as operation modes. Also, the conventional devices are deficient because unintentional motions of a user may generate an erroneous operation by the portable terminal.

SUMMARY OF THE INVENTION

The present disclosure solves the aforementioned drawbacks of the conventional art by providing a portable terminal and a driving method of the same capable of giving instructions by using a motion pattern coincident with an intuition of a user.

The present disclosure is related to a portable terminal and a driving method of the same capable of giving instructions using a motion pattern capable of avoiding confusion of motion patterns.

An objective of the present disclosure is to increase the number of instructions applicable to a motion pattern and to prevent an erroneous operation resultant from an unintentional motion pattern by analyzing the motion pattern using the motion pattern and an input from another manipulation device.

According to one general aspect of the present disclosure, there is provided a portable terminal including: a motion sensing unit for sensing a motion of the portable terminal; a manipulation unit for receiving a manual manipulation of a user; and a controller for interpreting a value inputted from the manipulation unit and a user instruction from a motion pattern sensed by the motion sensing unit.

Thus, there is an advantage in that the portable terminal can combine the input of the manipulation unit and the motion pattern to receive various cases of instructions from the user and to resultantly increase a user convenience and a user satisfaction.

According to another general aspect of the present disclosure, there is provided a driving method using a portable terminal, including: recognizing a motion of the portable terminal to check an input of a touch screen or a designated key button; interpreting a user instruction from a motion pattern comprised of motion detection values of the motion sensing unit during an input of the touch screen or the designated key button; and executing the user instruction.

Thus, there is an advantage in that the portable terminal executing the driving method can be applied to interpretation, as the user instruction, of only the motion pattern derived from motion values generated from an intentional touch of the touch screen or depressing of the designated key button to thereby prevent an erroneous operation by the motion sensing unit.

There is an advantageous effect in the portable terminal and the driving method of the same thus described in that user conveniences can be increased. For example, an instruction can be given using a motion pattern consistent with intuition of a user and the number of user instructions using the motion pattern can be increased. Furthermore, an erroneous operation of a portable terminal caused by unintentional motion under a portable environment can be avoided.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a block diagram of a portable terminal related to an exemplary implementation of the present disclosure and configured to execute one or more of the methods described below.

FIG. **2** is a front perspective view of a portable terminal according to an exemplary implementation of the present disclosure and configured to execute one or more of the methods described below.

FIG. **3** is a rear perspective view of a portable terminal of FIG. **2**.

FIG. **4** is a schematic view illustrating a structure of a touch screen according to one embodiment of the invention.

FIG. **5** is a schematic view illustrating a principle for detecting a proximity distance of an object using the touch screen of FIG. **4** according to one embodiment of the invention.

FIG. **6** is a schematic view illustrating a position detection principle of an object using the touch screen of FIG. **4** according to one embodiment of the invention.

FIG. **7** is a flowchart illustrating a driving method of a portable terminal according to one embodiment of the invention.

FIG. **8** is a flowchart illustrating a method of determining a motion pattern during a designated manual input according to one embodiment of the invention.

FIGS. **9***a* to **9***e* are conceptual drawings illustrating various keys applicable to a manual input f according to one embodiment of the invention.

FIGS. **10***a* to **10***d* are conceptual drawings illustrating kinds of motion patterns according to one embodiment of the invention.

FIGS. **11***a* to **11***c* are conceptual drawings illustrating elements applicable as parameters of motion patterns according to one embodiment of the invention.

FIG. **12** is a display screen flowchart according to one embodiment of the invention and applied with an idea of the present disclosure to a content view screen relative to image files.

FIG. **13** is a display screen flowchart according to one embodiment of the invention and applied with an idea of the present disclosure to a content view screen relative to image files.